

thought of the original author. All must join in the fond hope that he may long remain with us in health and strength to complete what he has so ably begun. It is a work that must remain a credit, not only to Botany, but to American science forever.—W. W. BAILEY.

DISTINCTION BETWEEN MONOCOTYLEDONS AND DICOTYLEDONS.—Flahault has shown a beautiful distinction between Monocotyledons and Dicotyledons that any botanist with a moderately good glass can demonstrate for himself. A thin longitudinal section through the young root tip shows that in monocotyledons the root cap seems to be an independent thing, fitting on like a calyptra, while in dicotyledons there is no such distinction, but a perfect blending of tissues. In the former case the root-cap is renewed from its own inner row of meristem, while in the latter it is renewed directly from the *punctum vegetations*.—J. M. C.

NOTICE.—I would give notice that my address after September 1st will be changed from Hanover to Wabash College, Crawfordsville, Ind. Hence any communications to me of any kind in regard to the GAZETTE should be addressed to that place after the date mentioned above.—JOHN M. COULTER.

AN INTERESTING DEMONSTRATION.—Many plants contain raphides, crystals of oxalate of lime, etc., but cystoliths are of rarer occurrence, although abundant in certain plants, notably in those belonging to the Urticaceæ. A very interesting experiment and one that almost any one possessing a microscope of even ordinary power, say 200 or 300 diameters, may perform for himself is as follows: Take a leaf of *Ficus Indica*, *elastica* or *Mora*, *Morus rubra* or almost any of the Artocarpeæ and make a section of moderate thinness. If too thin the cystoliths will be broken and pulled out by the razor. Under the glass will be seen a beautiful arrangement. Certain cells of the epidermis or of the surrounding tissue are enlarged and specialized and from their top the mass usually hangs upon a short stalk. In *Ficus elastica* the cystoliths consist of an amorphous mass of cellulose studded with crystalline points of carbonate of lime, the whole being in somewhat the form of a very thick bunch of grapes. If now we place a drop or two of acetic acid at the edge of the cover-glass and allow it to creep under while we keep our eye upon the object the result will easily prove the composition of the crystals. Quite a furious effervescence takes place and soon nothing is left but the amorphous cellulose. Upon jarring the table slightly this will be